DOCUMENT RESUME

ED 065 412 SO 003 511

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TITLE Reconstruction in the Relation of Social Science and Education.
PUB DATE Apr 72
NOTE 32p.; Paper presented at the American Educational Research Association Meeting, Chicago, Illinois, April 5, 1972

EDRS PRICE MF-$0.65 HC-$3.29
DESCRIPTORS *College School Cooperation; *Education; Educational Experiments; *Educational Research; Higher Education; *Interdisciplinary Approach; Research and Development Centers; Research Projects; *Social Sciences
IDENTIFIERS Twelfth Street School Project

ABSTRACT

This paper considers the reconstruction of the relationship of social science and education, and examines two main alternatives, first, that efforts to join social science theory and research to education are irrelevant and deleterious--a position which is discussed, analyzed, and refuted-- and second, as purported by the authors, that social science theory and method are relevant to educational enterprises. The Twelfth Street School Project illustrates how a development of structure can bring together university faculty and school system personnel to work jointly and cooperatively in a "Center for Innovation and Research." The structure and organization present an embodiment of five premises. 1) The collaboration of educator and social scientist can best occur on the neutral ground of a center. 2) The disciplines in a joint effort must depend upon analysis of the problem and upon the orientations of collaborators. 3) A close relationship between university researchers and school practitioners is necessary. 4) Research contacts should be sustained and cohesive. 5) The same research findings can contribute to a disciplinary body of knowledge and to the solution of "real" problems of teacher and administrators. The Center has produced an understanding about the possibilities of a productive relationship of social science and education. (Author/SJM)

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RECONSTRUCTION IN THE RELATION OF SOCIAL SCIENCE AND EDUCATION

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"The relevance of sociological theory and method to the understanding of important educational problems is seldom challenged in contemporary discourse. Similarly the contribution which the study of education can make to the development of sociological theory and method is widely acknowledged." (Herriott and Corwin, 1969). With this statement Professors Herriott and Corwin began their discussion of the structural constraints on the relation of sociology and education, which was presented at the initial meeting of Division G in 1969. In a recent description of the proposed National Institute of Education, Finn stated:

> To succeed, the institute will have to attract men and women from many disciplines, most of them in the social sciences, among which perhaps the least is educational research--a perverse but profoundly important reckoning for a new agency <u>dedicated</u> to educational research. (Finn, 1972).

Herriott, Corwin, and Finn are but three in a long line of social scientists and educators who have called for the application of social science research to education. As theorists and researchers, however, our commitment is to challenge beliefs which have come to be conventional wisdom. It is especially important to be critical of accepted propositions which are simultaneously self-serving and contradicted by reality.

It is odd that these clarion calls, hallowed by incessant repetition from those possessed of wisdom and impeccably credentialed, are so lacking in implementation. The divergence between this called-for goal and reality may be accounted for in two ways. Herriott and Corwin may be perfectly correct. The structural and organizational barriers between education and social science may be so high that the desired convergence is extraordinarily difficult. On the other hand, attempts to join education with social science theory and method may simply be a high-sounding, foolish idea. Reality may be right!

Before we initiate a solution we should understand the problem. If there is nothing wrong with education, or if what is wrong cannot be remedied by social science research or theory, then the repeated calls for convergence constitutes a major distraction to educators and social scientists. In essence, it is possible that the application of social science to education is a waste of time and deleterious to all disciplines involved.

As an introduction to our discussion of the reconstruction of the relationship of social science and education, we would like to examine the two alternatives: that efforts to join social science theory and research to education are unnecessary, or that social science theory and method are relevant to the educational enterprise.

One refutation of the efficacy of an association between social science and education is that calls for increased association between social science and education do not stem from an assessment of the prior accomplishment of that association; rather is a normative demand extraneous to the function of education. At the basis of science, for example, there are numerous assumptions, that we are unable to examine in any definitive manner. We are ultimately driven to accept these assumptions (when we think about them at all) as mysterious givens and proceed with the validation of the scientific process on pragmatic grounds. Science is evaluated pragmatically. Business is judged by the production of profits, goods and services. Education ultimately must be evaluated by the success with which it meets its commitment to society to educate. Why should education be preoccupied with the development of scientific theory rather than being about the task of educating. It is arbitrary to demand a theoretical understanding if such understanding is not relevant to the outcomes of education. Such theoretical understanding may be nothing more than a challenging and stimulating game for the researcher.

Let's pretend! Imagine how society would appear if education were a failure. Occupations demanding technical skills, intellectual acumen, and the ability to use knowledge would be unfilled. It would be impossible to hold referenda on complex issues. Systems of mass communication and transportation would go unused. And speculations about the relationship between social science and education would be unknown. A complex highly specialized society would break-down if the educational process is ineffective. We are prone to concentrate upon the failures of education which require remediation but accept the many successes as natural occurrences. The conclusion that education has failed is inevitable if our expectations are high enough, or we make perpetual demands upon our understanding of the processes of education. Maybe it is time to judge our success in education by the pragmatic results of education. Maybe there is more to be satisfied with than to lament.

Education has not been static, but how has it progressed? Innovation in education has been the product of the successful application of trial and error. Progress in education is a result of the cumulative insights of educators. Innovations such as mass compulsory education, team teaching, the open classroom, have truly been the product of trial and error, and at best have been given a tardy and frequently superfluous imprimatur from social science research in education. Fortunately the emergence of innovations is not contingent upon the foolish sophistication of scientific justification.

We have been looking at the contribution of social science research to education, but the argument might be made that crucial problems in the development of general social science theory could only be addressed through investigations in the educational system. Perusal of the social science literature does not support this contention. Education is only one of a number of generally inter-

changable organizations and institutions within which theory can be developed. Granted it may be one of the most easily intruded upon, but, the contributions of Gross et al., (1957) for example, with regard to role, role conflict and its resolution, developed within an educational setting is paralleled by the work of Kahn et al. (1964) in the industrial setting. Gross might well have pursued his theoretical insights in the institution of the family using the frequency and conditions of divorce as the culmination of role conflict rather than the maintenance of the position of superintendent.

Finally, the convergence of social science research in education may be undesirable even if productivity occurs. The process of teaching and learning as a sensitive, human interaction cannot survive the intrusion of a cold mechanical and doctrinaire scientific method.

> 'True' scientists, unlike ordinary human beings, are supposed to be impartial. In the name of 'pure' science they strive for absolute accuracy through perfect disinterestedness or objectivity. Affiliation with some partial interest results in the loss of the scientific spirit. Such a radical requirement makes it awfully tough to be both scientific and human . . . . Numerous flow charts based on an elaborate computer model are required equipment for the explanation of [such] theories. The clank of metal is deafening, but the ghost behind the machine is discernible though not spoken of (Brown, 1968, pp. 237-239).

This quote by Brown gives the flavor of a process inimicable to an intuitive process such as the ART of teaching. Van Cleve Morris in Existentialism in Education portrays this conflict:

> It is by now a truism that behavioral scientists almost never speak of involvement as personal, emotional or privately affective in nature, because such involvement does not lend itself to the conventional forms of conventional inquiry. To the existentialist, therefore, Experimentalist and Progressivist theory in education can be put down as essentially bloodless and emotion-free . . . canons of inquiry in all the splendid ramifications of that favorite word of the scientific mind, now becomes the prime aim of instruction. (Morris, 1966, p. 118).

In order to study the butterfly we must dissect it and hence destroy it.

If all of this is clear why the persistence of the effort? The College of Education is subject to the same norms which pervade the university. Publication is an important way for all the university professors to achieve recognition. Education is made academically respectable by taking on the trappings of academia. Irrespective of the contributions to the needs of education, research and publication meet the needs of the professor. From this perspective it is difficult to resist the call for practicing social science research in education which obviously provides avenues for those activities for which the educator gets rewarded.

In sum, we have maintained: 1) that the benefit of using social science research to further the ends of education is too often assumed and unexamined; 2) that the difficulty of achieving this rapprochement may indicate that the joining of social science to education is irrelevant rather than simply mechanically difficult; 3) that the combining of social science and education represents an arcane and needlessly pedantic goal; 4) that the products of such collaboration have not met expectations; 5) that education as it exists has satisfied if not optimally realized the needs of society; 6) that educational advances and innovations have developed independent of social science efforts; 7) that important contributions to social science theory are not dependent upon the use of educational systems for social science research; 8) that the essence of the process of teaching is destroyed by the mechanical analytic attempt to reduce it to an invariant set of rules and relationships, and finally, 9) that the impulse to social science research within education while functional for university professors is non-functional in the educational process.

This argument represents our best effort to develop the position that the use of social science theory and methods to understand and improve education is

at best irrelevant and probably deleterious. We hope you find it a fair attempt. We have been successful in developing more than a pro-forma argument, if any of the preceding arguments have had the ability to raise doubts about what is normally a given.

As a research team of educator and social scientist the position of advocacy for collaboration between social science and education is more comfortable to us. However, we examine these arguments not to expose them as falacies but with the awareness that they might be correct. Having considered the first alternative that efforts to join social science theory and research are unnecessary, we now turn to an examination of the proposition that social science theory and methods are relevant to the educational enterprise. Those of us assembled here this afternoon are likely to agree to an assertion of this proposition, but those influentials who would endorse the preceding arguments require and deserve more than a mere assertion of what is to us an obvious good. Unless we understand their arguments and are prepared to offer ours, the task of implementing facilitating structures for the joining of social science research with education can be accomplished only through coertion with little hope of success.

We have argued that the lack of convergence between social science and education may represent a reality. The reference to a chronology of futility does not constitute an analysis. It is always easy to accept precedent as a substitute for logic. What we must do is to find the logical convergence between the nature and goals of education and the processes and possibilities of social science. We must recognize that the question does not have an absolute answer. The answer is contingent on the nature of the educational goals specified and upon the conditions under which these goals are being pursued. Depending on what we expect of education and the social context of education, a relation between social science theory and research and education will be more or less appropriate.

For example, an important position in contemporary education is the notion that individual differences among students require an educational program responsive to such differences. This stance complicates the task of education enormously. It creates three demands for education. First, that individual differences be perceived and understood. Second, that a variety of effective educational techniques be developed that are responsive to the defined individual differences and third, that the various educational techniques be coordinated within a coherent system of education.

The perception and understanding of individual differences might be construed as the outcome of an intuitive process of the sensitive educator. Yet in a system of mass education no individual child is educated by a teacher. He is working with many teachers, who work (we expect) in interrelationships with one another. The child who is exposed to a series of different and possibly antithetical conceptions of his characteristics, in what is supposed to be a coherent system of education, may be hurt by the implementation of the norm of individualization of instruction rather than helped. How can we address ourselves to these educational problems? The etiology and meaning of individual differences is a continuing focus of personality theory and research, while the problems of the coordination of diverse educational techniques might be well approached through sociological organization and systems theory.

Another argument is that education is meeting its social mandate, that education on a non-scientific base should be declared a success. This is an assertion which cannot be tested. Alternate untestable assertions might be that society functions in spite of education. Furthermore, the "know-nothing" approach to education betrays itself through the proliferation of an endless stream of slogans and folklore which seem to function in lieu of substantiated

knowledge: "teach the whole child," "I teach children not subjects," "teachers are born not made," "children fail to learn because a teacher has failed to teach." The "know-nothing" approach would be more convincing were it not for the fact that education abounds with folklore masquerading as knowledge.

Statements such as those we just mentioned constitute attempts to explain phenomena. So does scientific theory. These cliches, however, protect themselves from attack by their circularity or by their untestable nature. Theory is developed in a way which permits empirical test. It may be falsified and changed. So long as educators express a need for generalizing statements which order their thought, generalizations must be assessable on the basis of their salience to the educators' stated goals.

The argument that innovations can occur without a scientific base does not negate the possibility that advances are effectively developed through the application of scientific study. While impressive technologies have been developed by trial and error, such development is slow and uncertain. The fact that technological innovation has occurred cannot blind us to its cost through the trial and error route. In the realm of education the errors are made with human beings, and the use of science to reduce the error factor in educational technology may be posed as a moral imperative. A recent example of trial and error in action is the attempt to develop programs to educate disadvantaged students. Hundreds of innovations have been tried, yet it is doubtful that educators have increased their ability to devise effective programs. Theoretical considerations such as the relationship of poverty to scholastic achievement variables have been absent in the literature. In the absence of theoretical considerations meaningful research is also absent. The literature is characterized by slogans and a seemingly endless catalog of tasks which disadvantaged children do less well than advantaged children. There may be levels of tech-

nology in education which are unattainable without a scientific base.

The necessity of an educational setting for social science research is difficult to determine. The assertion that there is nothing uniquely instructive to social science theory in the educational setting may or may not be true. But its use as an argument for maintaining the separation of social science and education is weak and premature.

The idea that social science research does not belong in education because the process of science dehumanizes the art of education rests on a misconception of the process of science. If we view the process of science as noncreative and mechanical, our reluctance to see it influence a sensitive human activity such as teaching is understandable. The same feelings are generated and arguments made about the study of human sexuality, the study of genetics, and the use of computers for medical diagnosis. The concern about science dehumanising education involves a mistaken notion about the process of science. Robert Jastrow (Saturday Review, 1965, p. 55) an eminent astrophysicist, put it this way:

> . . . scientists have permitted (and occasionally encouraged) the development of a public image of science as an impersonal and dehumanized field of work, unintelligible and inaccessible to all but a gifted few. This stereotype portrays the scientist as a man who starts with a premise of established fact, proceeds by a formal reasoning, and arrives in this way at an incontestable conclusion. It represents the scientist as a logically perfect but alien being, dealing in facts and truths, a man who works like a machine.
>
> This is a false image because a scientist goes about his business in the same manner as everyone else, relying heavily on subjective and intuitive judgments. However, when he has reached a significant result, he covers up his tracks and replaces his intuitive reasoning by a formal discussion designed to convince his colleagues. These traditional methods of presentation in the scientific literature, which conceal the intuitive element in scientific discovery, serve to alienate the general public.

Popular misconceptions and stereotypes of the "Spock-type scientist" (the Vulcan, not the Pediatrician) should not be permitted to blind us to the true

nature of science and its compatibility with education. Science is a passionate enterprise; it is composed of insight, intuition, creativity and, like education, the human striving for understanding.

A second independent error made by the proponents of this position is that the products of the scientific process must be employed in the same fashion that they are created. If it is believed that the process of science is a mechanical-noncreative one (a point not conceded in this discussion), then it may be believed that the application of scientific information in a task such as teaching would also be mechanical and noncreative. If this were the case we would have to assert that the scientific creation of information about light refraction and chemical pigmentation would have to produce mechanical paintings by constrained, noncreative artists.

We began this discussion by noting that the divergence between the desired, productive relationship between social science theory and research and education, and the continued separation between the disciplines, may be accounted for in two ways. We have examined the possibility that the disciplinary rapprochement is not forthcoming because it is inappropriate and sterile. We believe our rejection of this position stems from the assessment of the position rather than simple assertion. We believe that Professors Herriott and Corwin are correct. The structural and organizational barriers between social science and education are high and convergence is extraordinarily difficult. Therefore, an innovation proposed by Herriott and Corwin deserves our closest attention.

Herriott and Corwin suggest that within large publicly controlled universities the coordination of social science and educational research in education be accomplished through the creation of two types of research institutes.

> 1) Institutes for Social Science Research (or some similar title) which are controlled administratively by deans of colleges of arts and sciences and charged primarily with performing basic research, and 2) Institutes for Educational Research which are controlled administratively by deans of colleges of education and are charged primarily with performing applied research. (Herriott and Corwin, 1969, p. 16.)

Each institute would contain a series of centers. One of the centers within the Institute for Social Research would be a Center for the Study of Education "staffed by social scientists skilled in basic research in a particular discipline and committed to the advancement of theory in that discipline. The problems studied would arise out of the disciplines, but would be investigated within the most relevant social institutions in order to illuminate implications for practitioners in that area." (Herriott and Corwin, 1969, p. 16). The Center for the Study of Education would be staffed by sociologists, anthropologists, economists, political scientists, and historians.

The Institute for Educational Research would also contain centers organized around problems whose identity from time to time would shift. The Center for the Study of Mental Retardation, the Center for the Study of Urban Education, etc. would be staffed by

> persons with training in one of the social sciences, . . . but their major commitment would be to the improvement of educational practice through applied research . . . . The research problems on which they work would generally arise from initiatives outside of the university (e.g., a request from the State Department of Education, or a particular school system), and would be pursued on an inter-disciplinary as well as multi-disciplinary basis. (Herriott and Corwin, 1969, p. 16).

The authors provide that interaction between social scientists with applied and basic commitment could be arranged through "task forces, consulting arrangements, research symposia, invited speakers, luncheon seminars, membership on common dissertation committees, and social activities." (Herriott and Corwin, 1969, p. 18). Individuals would be permitted to transfer from institute to institute as their interests change.

While the literature abounds with expressions of the need for interaction between social science and education, Herriott and Corwin provide an explicit mechanism for its realization. Sensitive to the complexities of the task, they conclude their paper by urging "those who are committed to the sociological study of education [and we hope also others committed to the scientific study of education] as an important line of inquiry [should] begin to wrestle with alternative ways to accomplish this without destroying the emerging commitment of universities to basic empirical research in the sociology of education." (Herriott and Corwin, 1969, p. 19). We would like to examine several of the key assumptions upon which their innovation is based, and to describe a somewhat different innovation with which we have been associated for the past six years.

A basic assumption is that to achieve a relationship, sociology and education must remain self-consciously parted. The respective institutes, different in goals and personnel are firmly implanted in different colleges of the university. It is the burden of their presentation that the barriers are so high that they must be honored rather than breached.

Professors Herriott and Corwin take a bold stance by using, as the basic assumption, a dicotomy between basic and applied research which has a venerable history but which is under increasing attack in social science. The specification of this distinction in the abstract exceeds our ability to categorize many pieces of research use. As we were considering this distinction we found ourselves unable to develop criteria that would allow us to classify our own work on role perspectives of teachers toward the use of Ritalin, adolescent subcultures in high school (Callahan and Robin, 1970), social class and visual information processing of young children (Bosco, 1970), or such major contributions as An American Dilemma (Myrdal, 1944), The American Soldier (Stouffer, 1949),

Mass Persuasion (Merton, 1946), Explorations of Role Analysis (Gross, et al., 1958), and Staff Leadership in Public Schools (Gross and Herriott, 1965). The mechanical distinction between basic and applied research maintained by Herriott and Corwin is an inaccurate and inadequate basis on which to fashion a joining of education and social science. This analytic distinction has largely been discarded because of its limited application to research. The attempt to make reality reflect the distinction results in artificial barriers between theory and practice and among those who should work together to produce fertile research. The placement of research within one of the two institutes, would, of necessity, be predicated upon the type of contribution which the investagator intends to make, unless the research finds a place in the Institute after its completion. We must bear in mind Merton's admonition about the confusion of motive and function. (Merton, 1957). In Herriott and Corwin's rationale, the specification of the research as basic or applied ultimately depends upon its function. But in their scheme, its placement in an Institute depends on an assessment of the motivation of the investagator.

Specification and separation of researches into different institutes is a complicated and possibly unworkable task for administrators: who would decide which researches are applied and which basic, by what criteria and ultimately to what end? As Herriott and Corwin imply, a given research might change categories and therefore institutes several times, making the already reluctant coordination of education and social science absurd and difficult. External restraint upon a researcher to categorize, a priori, his research is a needless burden.

Another aspect of the rationale for the proposed institutes is the disparate and antithetical rewards and prescriptions supposedly found in the social sciences and education. In one there is reward for the development of knowledge, while

in the other there is reward for sensitivity to the immediate constituency of practitioners. This analysis finds undimensionality in complex situations. It seems an oversight to neglect societal pressures which impinge upon the entire university--both social science and education departments. Social science departments as well as education departments have service functions. Demands that sociology help prepare students for occupations (as was prevalent in the 50's and seems reemergent in the 70's) are of the same order as demands that sociology departments be involved in curing the ills of society rather than ivory-towered citadels devoted to the accumulation of knowledge. As a necessary condition in offering advanced degrees, departments of education, particularly those involved in graduate programs, feel the pressure to maintain faculty members who pruduce research. As stated in the Standards for Accreditation of Teacher Education developed by the National Council for Accreditation of Teacher Education, "Faculty members are expected to display a high order of active scholarship and to have done original research . . . . (National Council for Accreditation of Teacher Education, 1970, p. 17). The Elementary and Secondary Education Act provided incentives and rewards strongly felt in Colleges of Education to accumulate knowledge via the research process.

Any department in a university is subject to diverse and often inconsistent types of pressures and rewards. Each department has its own particular mix of those pressures found within the university. While general differences exist, it is on the basis of the similarities that collaboration between social sciences and education becomes feasible.

Herriott and Corwin recognize the need for what they term a "critical mass" of researches in education by pointing to the very exceptional instances of its establishment (Harvard-Chicago). Even in these cases the critical mass referred to is of sociologists within schools of education to help provide and stimulate

the quality and quantity of research usually lacking. The innovation of structurally separated institutes makes the development of such a critical mass unlikely. Given the confining nature of the Institute for the Study of Education, social scientists would be discouraged from congregating into a "critical mass." Further, such a structure would make it unlikely that Schools of Education could develop a "critical mass" indigenous to the discipline. Unless Herriott and Corwin believe the present (albeit limited) contact of social scientists with education faculty actually retards the ability of educators to develop useful research, institutionalizing separation by means of an innovation such as the Institute for Educational Research offers no new hope for improving the impetus to and quality of educational research. If the educational researcher is systematically disengaged from close association with the social sciences then a downward spiral in educational research described by Cronbach and Suppes is almost sure to result:

> The Education faculty cannot hold its own with colleagues in academic departments; joint efforts dwindle; the Education professor drops in campus esteem; and a still lower quality of person is attracted for the future. The upgrading of educational research requires attention not only to research procedures but to fundamental conceptions of the Education faculty's job and to the recruitment and development of faculty members. (Cronbach and Suppes, 1969, p. 232).

The solution that Herriott and Corwin propose is strange. After asserting the desirability of a relationship between social science and education, they progress to an analysis of the reasons for their separation and conclude with a proposal to perpetuate the separation--viewing it as a positive good. At this point the proposal takes on the character of a Greek tragedy.

A major part of the rationale for the proposed structural innovation rests upon what the authors call "an impressionistic" analysis of educational sociology between 1930 and 1950. The authors maintain a dual perspective. On the one hand

they are fearful that the education-sociology hybrid, alienated from general sociology, will reemerge as a result of the unwise attempt to mix disciplines, and on the other note the general changes in perspectives and procedure that have been associated with the renaissance of the Sociology of Education. The authors' acknowledgement of the changes in perspective of social scientists working in education argues against their tendency to inflict past relationships between the disciplines upon future prospects of their collaboration. The alternatives are starkly drawn: sterile hybridization or separation. These alternatives are not exhaustive. We will present a third.

Unless we contend that theory and practice can remain divorced in perpetuity at some point a way must be found to unite these elements. Herriott and Corwin describe the mechanism for separation but say little which help us to understand how eventually the relations between social science and education will be organizationally and substantively expressed. They drop only the first shoe.[1]

One of the more serious problems with the Herriott and Corwin proposal is an omission. This serious limitation in their analysis is the absence of school system participation in developing understanding in education. According to their plan, the school system would be a passive laboratory for basic research in the Institute for Social Research and the school system would be an "outside" requestor of research for the applied research in the Institute of Educational Research: the structural, systematic, routinized, <u>active</u> participation of the school system, its knowledge and perspective, are not considered. The collaboration of the university with the school system promotes the development of knowledge about education in the following ways:

1. Complimentary insights, knowledge and abilities can be integrated.

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[1]We get the feeling that the second shoe hasn't been crafted.

2. Effective problem solving in the school system is best approached through the systematic development of cumulative knowledge.

3. Total-system variables can be studied in order to understand education as an institution and an on-going process.

4. Academicians can have increased access to primary data in the educational system. The school system educator can develop an understanding and appreciation of the potentials of research.

5. There can be simultaneous representation, commitment and cooperation of both systems occurring over long periods of time making possible longitudinal research.

Perhaps the most deleterious effects of the separation between school system and universities is the absence of a commitment to research as an approach to general understanding and as a basis for decision-making on the part of the school system. The subtle factors of the pursuit of knowledge embodied in the university are unavailable to the school system. The hiring of research and other technical skills promotes the perception of the solution to problems in isolation form a commitment to a general pursuit of relevant knowledge and systematic research. This relationship fulfills the need of the academician only occasionally and the need of the school system superficially.

Finally the general premise of the proposal needs to be questioned. The basic proposition is that pre-existing structural constraints upon the relationship between social science and education exist and the desired functional relationship must follow the structural imperatives. Is it not possible for structural considerations to be made malable in light of acute function needs?

The development of structures has been attempted by several in the field of educational research. Ernest Boyer (1965) describes the Coordinated Education Project in Santa Barbara County, California designed to bring university and

school system together. This effort involved a limited university-school system collaboration in various educational tasks such as curriculum development and inservice teacher education. Boyer maintains that this structure could and should be used for joint research purposes. While the rationale for joint research efforts are developed and structural arrangements articulated, the effort falls short of actually establishing a joint research effort.

The Twelfth Street School Project is sponsored by the Milwaukee Public School System and the University of Wisconsin-Milwaukee. The purpose of the project was to develop an inner-city elementary school into a "center for innovation and research." (Fleming, 1970, p. 156). Faculty from the university and personnel from the school system are cooperatively engaged in a series of projects. It should be noted that in this project activities are confined to a single school within the system, and the university participation is exclusively from the College of Education. A project participant notes "basic, indigenous differences between a city school system and an institution of higher education. There are differences in formal organizational dimension and in the attitudes, expectations, needs, and behavioral strategies of organizational members." (Fleming, 1970, p. 168). Nevertheless, these differences have not posed insurmountable obstacles.

In 1966, discussions between faculty and administration of Western Michigan University and Grand Rapids Public Schools were initiated. A multidisciplinary and interinstitutional planning group was appointed to develop a structure that would facilitate the multidisciplinary collaboration between university and school system personnel for the conduct and utilization of research. In September, 1968, the Grand Rapids Public Schools - Western Michigan University Center for Educational Studies was established.

The Center for Educational Studies exists to provide a meeting ground for social scientists and educators from the university and teachers and administrators from the school system. As a result of the Center, individuals from both systems are working collaboratively on a variety of educational researches. Rather than fortuitous uncoordinated contact, the Center provides for systematic joint efforts. The Center is supported equally by the Grand Rapids Public Schools and Western Michigan University. University support for the Center is from the general fund of the university, rather than from a particular college. The Center exists to serve all disciplines and departments within the university. All have equal access to the Center. Policy-making for the Center is invested in an interdisciplinary, inter-institutional ten-man board directly responsible to the President of the University and the Superintendent of Schools through their appointed representatives on the board.

The Center is a response to the needs of educational research. The structure and operation of the Center is a reflection of premises about how these needs should be met.

The first premise is that the collaboration of educator and social scientist can best occur on the neutral ground of a center which is not a part of a College of Education or a unit of the social sciences. There are no interlopers or aliens; no visitors or consultants on sufference. The Center, which is a joint university and school system structure, avoids prior structural relationships and constraints between social scientist and educator. The Center performs a similar function for university and school system collaboration--providing a special structure for the joining of efforts in an organization removed from yet part of the two cooperating systems.

The history of attempts at interdisciplinary collaboration is full of instances of initial grand intention ending with collaborators reaffirming their belief that their own discipline is less limited than those of their colleagues. Discussions about what the team might do break down as members become increasingly sure that it would be easier and perhaps better to address the problem from a single disciplinary standpoint. Too frequently interdisciplinary collaboration is seen as a goal in its own right for achieving knowledge. An important premise upon which the Center is grounded is that the particular mix of disciplines involved in any joint effort must be contingent upon an analysis of the substantive and political aspects of the problem at hand as well as the professional and theoretical orientations of potential collaborators.

A third premise is that a close relationship between university researchers and school practitioners is necessary. We should not have to choose from trivial research competently executed or significant research inadequately executed. The public school teacher and administrator has a perspective which enables recognition of the crucial questions. Day-to-day participation in the activities of the school system provides insights and an understanding of the situation necessary for good research. The university professor has the theoretical and technical expertise in research. It is absurd to attempt medical research without stepping into the operating room. The functional disengagement of educational research from the public schools is equally absurd. The professor and public school teacher or administrator seeks complimentary goals in the deepening of understanding of the process of teaching and learning. The perspectives and competencies are complementary. To work together as colleagues seems natural and logical.

Another premise is that the research contacts should be sustained and cohesive. Most educational problems do not yield to "one-shot" research. A mechanism is necessary which coordinates otherwise fragmented researches so that there is an accumulation of knowledge which is greater than the sum of the parts. In addition it is necessary to facilitate longitudinal research, a process which, given the nature of the university and school system, is difficult to sustain. The coordination of research is not frequent because of mobility of researchers and changing research interests. Research coordination requires a permanent enduring setting with continuity of purpose.

Perhaps the most essential premise was that the same research findings can contribute to a disciplinary body of knowledge and to the solution of "real" problems of teachers and administrators. The issues which are embodied in the problems faced by the teacher are issues which have theoretical relevance. To segregate the development of theory in the university and the confrontation of specific educational problems in the school system is to perpetuate the mischievous falacy of problem-solving on the basis of ad hoc response. Ultimately all "practical" knowledge gained extends understanding; all "abstract" knowledge forwards practice. The collaboration of university and school system personnel in research can increase the likelihood of multiple use of research products to the benefit of both systems. Cronbach and Suppes distinguish between decision-oriented and conclusion-oriented research, but deny the need for the segregation of them:

> Conclusion-orientation research is intended to have a general significance, whereas decision-oriented research is designed for a particular institution at a particular time . . . . A case can be made for a certain amount of conclusion-oriented, publishable research carried out in school systems; this can contribute to the professional thinking of all who participate. And the scholar who joins a decision-oriented investigation comes to see his specialty differently in this value-laden context; the experience can make his subsequent thinking richer and more realistic. (Cronbach and Suppes, 1969, p. 25).

The structure and organization of the Center represents an embodiment of those five premises. The Center is a permanent part of both systems and a link between the two. Control of the Center is shared equally by both institutions. In order to insure mutually advantageous and complementary participation, the Center is governed by an interdisciplinary, inter-institutional policy council. The Center is administered by two half-time appointments from each system. The university administrators are an educator and a sociologist. By providing that all administrators have primary affiliation with one or the other system, channels to the systems are maintained. The objective of sustained and cumulative research is approached through the use of staggered terms for policy-makers and administrators of the Center. To bring the widest range of competencies to educational research, the Center is an all-university structure, drawing upon all departments and disciplines for policy-makers, administrators and researchers. Similarly, interdepartment participation is provided by the school system. The Center maintains close ties with other data-gathering units within the school system, but does not duplicate their solely intra-school system research function.

While the specification of a model and the premises behind it is a noble thing, full of hope, and bright with promise, the ability to make it function is its ultimate test. A first and continuing difficulty in getting the Center to work as intended came about as the result of two mistaken notions about the ways in which the Center was intended to work. These notions were so pervasive and spontaneous that their existence and dysfunctions seemed to us an indication of difficulties endemic to this type of effort. These mistaken notions provide insight into the problems of interdisciplinary and inter-institutional research collaboration. Their content and origins must be understood if structures for joint research are to endure. The development of these "deviant expectations"

occurred in spite of extensive efforts to communicate.

The first erroneous expectation to be recognized was the "Center As the Only Active Agent" model. This idea came mostly from the school system. Essentially it was the idea that while the members of the school system would help define problems and areas for research, the Center and/or the university would conduct it. While this notion was a step away from the "hired hand" concept of university-school system collaboration, it was a far cry from the intended collegial model of the Center. The concept of members of the school system as active participants in the creation of knowledge needed by the school system is too alien, too different to be accepted easily. The substitution of a more compatible, familiar idea was a common response in spite of the patent impossibility of four half-time administrators--within a school system serving 250,000 people--conducting all the research stimulated by the interaction of university and school system personnel. The practical problem, therefore, was that it was hard to respond to questions of "Can you do this for us?" without turning off school system interest and participation in the Center. The understanding of what was happening was essential but additional hours of explanation and encouragement were required.

The second deviant norm recognized was a more subtle and in some ways more difficult one; this is descriptively called the model of "Cost-Accounting Altruism." The holding of this concept occurred in both systems but more strongly within the university. Again in rejection of the collegial model, this idea involved the expectation that the Center would do something of value for the school system and would balance this with something of value for the university. More subtle was the idea that Cent ities would be balanced among disciplines. Even if this were possible it would require impossible effort to maintain a calculus of parity and unlikely wisdom to construct its rationale. This cost accounting

effort would collapse of its own weight leaving one or very likely both institutions feeling short changed. Second, this idea was a denial of the premise, basic to the Center, that value to members of both institutions could be found in the same collegial research efforts. The effort to label research as primarily of benefit to a single party is corrosive. We are so accustomed to the insulation of the university from the school systems and academic disciplines from one another, that this was easily assumed as the model of the Center. To counter this it was not only necessary to correct this view of the Center by direct communication but also to encourage as strongly as possible the development of co-investigators from both institutions in research as a natural antidote to this misconception. Even when a research has only one investigator it is necessary to demonstrate its applicability to the needs of both institutions through the Center-developed methods of dissemination.

The task of realizing the model, however, is not simply the recognition and correction of false conceptions but rather the further development and application of the one specified.) The model as specified to this point has structure and process (collegial relationships, simultaneously useful research, longitudinal additive research, etc.) but no specification of research priorities. Initially concepved as an instrument for the exchange of research needs and abilities, the Center policy-makers and administration began to ask, "which ideas and questions put through the Center will yield the greatest benefit for cumulative understanding?"

The Center is thus in the process of becoming an active agent in for formulation of priority lines of research as opposed to a wholly passive instrument facilitating only that which arises idiosyncratically from either system. In consultation with members of both systems the Center has become a repository of those research concerns which the nature of the Center can best satisfy and a stimulator of those specific types of research best conducted through the Center. Center

administrators are still examining threads of research, important to both systems theoretically important to social science disciplines and suited to the Center's resources, and devleoping research priorities.

In the process of seeking out promising directions of research, however, the Center does not seek to exclude research developed by members of either institution, in other areas. The Center intends to add its active, substantively stimulating role to its passive facilitating one--not replace the latter with the former. Any researcher wanting help from the Center will receive it; a restrictive research empire is not intended; there must also be room for the spontaneous isolated research.

With the completion of the Center model one major impediment to its functioning must be recognized: the organizational differences between school system and university. Just because these differences are also part of the rationale and promise of the Center does not mean they are not dangers to the existence of the Center. When the attitudes and behavior of those from the other system seem incomprehensible, unpredictable and wrong-headed, then the enterprise is endangered.

In one system the members act with considerable independence, having many alternatives of behavior. In the other members are coordinated to fulfill a series of commitments under the surveillance of a watchful public. In one system members are pursuing careers which may take them through several institutions; in the other there is much closer association of careers and position in a single system.

The distinctions of line and staff are certainly archetypical differences between the two participating institutions. One administrator of the Center may legitimately insist upon consulting a superior prior to a given action

while another (from the other institution) feels this consulting a trespass on perogatives and a violation of rational administration.

Perhaps one of the best antidotes for the disjunctions caused by the differences in the social structure and administrative styles is the commitment to understand the characteristics of both systems as they relate to the Center. In the administration of the Center, it is important to ask: what does this look like from the policies, procedures, and norms of the other system. As understanding of the systems in which the Center operates increases, it is possible to anticipate the positions of administrators from the other system. It is necessary at least to understand what cannot be anticipated.

The policy-makers of the Center, from each system, have recognized the need for informal communication and more frequent contact and have initiated these. Members of both institutions are still learning to live with Center solutions that compromise cherished norms of their institutions.

The need to cope with differences between institutions in the administration of the Center has provided techniques for surmounting the problems of coordinating the activities of researchers from the different institutions. The university researcher who hears from a potential collaborator that permission is required from a succession of administrators is likely to surrender to dispair. The school system researcher who knows the practical value of a piece of research and has a mandate to pursue it may grind his teeth in frustration over a pedantic questioning of its legitimacy on abstruse theoretic grounds by his would-be university collaborator. If the Center is to be more than an empty model with no actual collaborative research produced through it, then the administrators must assist in the interaction of potential collaborators and attempt to emphasize the usefulness of collaboration.

This brings us to the heart of Center activity, the development of research. This process will vary depending upon the source of the research. The crucial element is the ability to listen. Typically school system personnel, while anxious to have the information produced by research, talk about the research question in the experiential fashion they know best. Suggesting the form of possible research appropriate to the needs of the school system member must be done most tentatively. The task here is to discuss the possible ways of phrasing the school system's concerns in some research terms--coming to no agreement on this but rather giving the school system member a series of concepts about which he may (if they are useful) organize his thoughts and through which he may communicate his interests to a university collaborator. Care must be taken not to oversell the possibilities and underestimate the amount of work involved in research. There is a danger of letting the Center be perceived as a magic device through which difficult things become easy and automatic.

Typically, a similar meeting takes place with the potential university collaborator. Following a search for the appropriate faculty the Center administrator meets with the faculty member explaining the nature of the possible research. The Center administrator tries to use the faculty member's responses and statement of interests to assess a "goodness of fit" and determine if a joint meeting would be profitable. Included in this discussion is an informal assessment of research sophistication. The abilities of faculty vary. Some idea of the consulting time and energies needed for the project should be made at this time. Most important is the faculty member's understanding that he will meet a potential colleague--a contributor to the research effort, rather than a facilitator of his research or a recipient of professorial pontification.

During both the meetings with the professor and school system member, the nature and function of the Center is explained.

A joint meeting is the next step in the process. A brief explanation of the interests and needs of both parties and the possible fruits of collaboration is provided by the Center administrator. At this stage, facilitating communication is the major task of the Center administrator. It is vital to know when to leave well enough alone in the interaction between the two and when to intercede.

In any given contact the possibility of failure must be faced. Not all converging of professionals will result in joint research. In some cases personnel from only one system must be encouraged to pursue the research alone, with Center aid.

The problem that we first addressed in this paper is more easily faced through the Center. The collaboration of social scientists with educators in the school system has been a regular occurrence. The collaboration of educational researchers from the university with educators in the school system has also become commonplace. Most important there has been, through the Center, collaboration in research among university-based educators, social scientists and school system personnel. Short-term equity cannot be guaranteed but school system personnel have found answers to immediate problems, social scientists have contributed to their disciplines and university educators have gained insights into the educational process through the process of collaborative research.

Participants in Center research have come from a wide range of disciplines. At the university, Professors and graduate students from the Departments of Sociology, Social Work, Music, Art, Speech Pathology, Teacher Education, Special

Education, Counselling and Personnel have been involved in research projects. School system participants have included teachers, principals, and specialists in art, music, reading, social studies, human relations, and physical education. At times, researchers have worked individually, but more frequently they have worked collaboratively bringing to a single research the knowledge and techniques of their disciplines. The majority of inter-institutional collaborations are inter-disciplinary: social scientists and others conducting research as colleagues with educators in the public school system.

Can this structure which we have developed within two systems in Michigan be used elsewhere? We are cautious missionaries. We realize that there may be some unique accidents which were crucial in the establishment as well as the survival of the Center. How rare is it to have a deputy superintendent of schools assert the propriety of school system active involvement in the production of knowledge which has usefulness beyond the boundaries of the school district? Is it strange to hear a Director of a Sociological Research Center claim that sociologists involved in education can learn something from collaboration with school system people which will make their research more penetrating? It may be impossible to package an innovation so that it can be "plugged into" other situations. We hope, however, that we are not unduly optimistic in suggesting that other social scientists and educators who seek the common goal of increasing what is known about education can derive benefit from the experience we have had with the Center for Educational Studies. Our experiences at the Center have produced in us one important understanding about the possibilities of a productive relationship of social science and education which is best expressed by a phrase used by the Scholastic Philosophers, "ab esse ad posse valet illatio"; that is, "From the fact that it is, to the fact that it is possible, is a valid inference."

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